

and a main printed circuit board (PCB) is greatly reduced, and the connecting structure of the rotary transformer and the main PCB is simplified.

In particular, the head drum assembly includes a stationary drum fixed on a main base of a deck and having a through-hole 230a formed in the bottom thereof (see, especially Figs. 3 and 4). A flexible printed circuit 232 is electrically connected to rotary transformers respectively installed in the rotary drum and the stationary drum, and is provided for transmitting an information signal read by the magnetic head to the main printed circuit board (PCB). A first connector 233 is coupled to an end of a flexible printed circuit for electrically connecting the flexible printed circuit to the main PCB. As best shown in Figure 4, the first connector has a first end portion which is inserted into and fittingly coupled to the through-hole.

In the rejection of claims 1 and 2 under § 102(b), the Examiner specifically references Figures 2 and 5 of Fukushima et al. (hereinafter "Fukushima"), and Figures 1 and 4 of Sakai.

Fukushima relates to a rotary head drum apparatus having a magnetic head attached to a rotary drum member and connected to a coil of a rotor of a rotary transformer so that a signal is transmitted between the magnetic head and a stationary drum member through the rotary transformer. As best seen in Figures 1, 5, and 7, Fukushima discloses a lead portion 31B extending downwardly through a terminal plate 29 and a flexible printed circuit board 28, and which is soldered to a respective portion of the printed circuit on the board 28. Signal transmitting pins 30 directed upwardly from the terminal plate 29 and being similarly connected, as by solder, to the printed circuit on the board 28, are engaged in respective connectors 60

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extending from the underside of the stator 19 in response to the positioning of the terminal plate 29 against the bottom surface of the stationary drum member 12.

Note, however, that the connectors 60 extend directly from the underside of the stator 19, whereas Applicant's claim 1 calls for a flexible printed circuit electrically connected to rotary transformers and for transmitting information read by the magnetic head, and further that a first connector is coupled to the end of the flexible printed circuit. Thus, Fukushima fails to teach all of the elements recited in claim 1.

With respect to Sakai, as best shown in Figure 1, lead wires extend from the rotary transformers 9 and are connected to signal lines of the recording system and reproducing system of the revolving heads 4. Further, a plurality of signal lines of a wiring harness 16 (or a flexible printed wiring board) are connected to a driving system for driving the spindle motor 8. The lead wires and wiring harness are connected to the lands 15. Further, a plurality of spring pin connectors 20 attached to the upper surface of the connector base plate 18 have spring pins 20a extending upwardly. The lands 15 come into contact with the upper ends of the spring pins 20a of the of the spring pin connectors 20 when the rotary magnetic head drum 1 is mounted on the drum base 11. However, the connector base plate 18 is not a printed circuit board. Accordingly, Applicant traverses the rejection under § 102(b) based on at least this distinction.

Moreover, claim 1 has been amended to emphasize that the first connector 233 has a first end portion which is inserted into and fittingly coupled to said through-hole 230a so as to extend directly downward via said through-hole, and a second end portion which extends beyond said through-hole (see Figure 4) and is electrically connected to a second connector 21' mounted to

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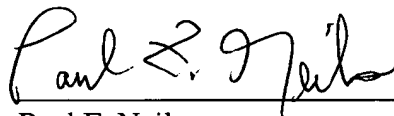
the main PCB 20'. With such an amendment, dependent claim 2 has been cancelled to avoid any redundancy.

Sakai fails to teach or suggest a first connector having a first end portion inserted into and fittingly coupled to the through-hole in the bottom of the stationary drum. Moreover, while Fukushima discloses the connectors 60 which extend into through-holes in the bottom of the stationary drum 12, the connectors 60 of Fukushima clearly do not extend beyond the through-hole as in the present invention (see especially Figure 4).

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such action is hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

Applicant hereby petitions for any extension of time which may be required to maintain the pendency of this case, and any required fee, except for the Issue Fee, for such extension is to be charged to Deposit Account No. 19-4880.

Respectfully submitted,



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